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EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT	PAPER NUMBER
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2627

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/585,907	Applicant(s) HAROLD-BARRY ET AL.	
	Examiner Peter Agustin	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This application is a national stage entry of PCT/IB05/50124, filed January 11, 2005.
2. Claims 1-26 are currently pending.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

4. Claims 1, 3, 6, 9, 11, 13, 14, 19, 20, 22, 23, 25 & 26 are objected to because of the following informalities:

Claim 1, line 3: "the said" should be --said--.

Claim 1, line 4: "the plurality of sampling windows" should be --a plurality of sampling windows--.

Claim 1, line 8: "processing means" should be --a processing means--.

Claim 1, line 8: "the said" should be --said--.

Claim 1, last line: "the said" should be --said--.

Claim 3, line 2: "the said" should be --said--.

Claim 6, line 2: "the said" should be --said--.

Claim 9, line 1: ",and" should be --, and--.

Claim 11, last line: "the said" should be --said--.

Claim 13, last line: "a optical" should be --an optical--.

Claim 14, line 3: "the said" should be --said--.

Claim 14, line 8: "the said" should be --said--.

Claim 14, last line: “the said” should be --said--.

Claim 19, line 2: “claim 1” should be --claim 14--.

Claim 19, line 2: “the said” should be --said--.

Claim 19, lines 2-3: “equal” should be --equal to--.

Claim 20, line 2: “the said” should be --said--.

Claim 20, last line: please delete the period after “by”.

Claim 22, line 1: “,and” should be --, and--.

Claim 23, last line: “which sampled signals” should be --which of the sampled signals--.

Claim 23, last line: “the said” should be --said--.

Claims 25 & 26 are objected to because they are not in conformance with MPEP §
608.01(m).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 1, it is not clear how the steps of “generating a plurality of timing signals serving to define the plurality of sampling windows”, “generating a plurality of runlength selection signals”, and “measuring light reflected at a run length land or pit” are interrelated.

Claim 14 has similar limitations as claim 1.

In regard to claim 3, it is not clear whether the limitation “the runlength signal” refers to one of the “runlength *selection* signals” of claim 1 (and which one) or all of the “runlength *selection* signals” of claim 1. Claim 16 has similar limitations as claim 3.

In regard to claims 4 & 5, the limitation “the runlength selection window” lacks antecedent basis because there is no previous mention of this limitation. Claims 17 & 18 have similar limitations as claims 4 & 5.

In regard to claims 8 & 9, it is not clear how the steps of “low pass filtering the sampled signals” and “calculating slope and offset values” are related to the limitations of base claim 1. Claims 21 & 22 have similar limitations as claims 8 & 9.

In regard to claim 16, the limitation “the RF analogue-to-digital converter” lacks antecedent basis because there is no previous mention of this limitation.

Claim 25 recites “a method of controlling writing of a signal to an optical disc substantially as hereinbefore described with reference to, and as illustrated in the accompanying drawings”, which fails to *particularly* point out and *distinctly* claim the subject matter which applicant regards as the invention. See MPEP § 608.01(m). Claim 26 has similar limitations as claim 25.

Claims 2-13 & 15-24 are dependent upon rejected base claims.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2627

8. Claims 1-7, 10-20 & 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Udagawa (WO02/097804) (please refer to US 7,113,468).

In regard to claim 1, Udagawa discloses a method of controlling writing of a signal to an optical disc (title: “optical recorder and laser power control method”) and including the step of generating a feedback signal to dynamically tune the source of the said signal (column 6, lines 55-64: “a feedback function can be implemented that allows recording power most suitable for generating marks to be output in an environment when an RF signal is monitored during recording”), and further comprising the steps of generating a plurality of timing signals serving to define the plurality of sampling windows (Figure 1(c)) for selecting data samples from RF signals derived from the signal reflected from the disc (Figure 11, timing generator 25c; Figure 12(c)), generating a plurality of runlength selection signals (Figure 1(b)) to allow for measurement of light reflection at required runlength lands or pits (Figure 1(a)), and measuring light reflected at a run length land or pit in processing means and employing the measured signal as the said feedback signal for the said tuning of the signal source (column 6, lines 55-64: “a feedback function can be implemented that allows recording power most suitable for generating marks to be output in an environment when an RF signal is monitored during recording”).

In regard to claim 2, Udagawa discloses that the width and/or positions of the sampling windows are programmable (as shown in Figure 1(b), the pulses have widths determined by integer multiples of a channel clock T; therefore, it is understood that the width of the sampling windows are programmable according to the channel clock).

In regard to claim 3, Udagawa discloses that said RF signals are selected when the runlength signal is high (as shown in Figures 1(b) & 1(c)).

In regard to claim 4, Udagawa discloses that the runlength selection window comprises the current plus next runlength land or pit (as broadly interpreted by the examiner in light of the 112-2nd paragraph rejection above, the claimed “runlength selection window” corresponds to any element in Udagawa that comprises the current and next runlength land or pit as shown in Figure 1).

In regard to claim 5, Udagawa discloses that the runlength selection window comprises the previous plus current runlength land or pit (as broadly interpreted by the examiner in light of the 112-2nd paragraph rejection above, the claimed “runlength selection window” corresponds to any element in Udagawa that comprises the previous and current runlength land or pit as shown in Figure 1).

In regard to claim 6, Udagawa discloses that the sampling rate of the said RF signals is at least equal to the frequency of a system channel clock (as shown in Figures 1(b) & 1(c)).

In regard to claim 7, Udagawa discloses that the RF sample signals are selected by means of the timing signals within a sample engine (as shown in Figures 1(b) & 1(c)).

In regard to claim 10, Udagawa discloses that the feedback signal is arranged for fine-tuning the Write Strategy associated with a DVD writable device (column 4, line 46: “DVD-Rs”).

In regard to claim 11, Udagawa discloses adopting a threshold value serving to determine which of the sampled signals initiate the said measurement (see “zero level” in Figure 1).

In regard to claim 12, Udagawa discloses that the selected threshold can be tuned (this is understood from the fact that the components for processing the pulses in Figure 1 are “digital”).

In regard to claim 13, Udagawa discloses that the feedback signal is arranged to fine-tune laser output power of an optical disc writing device (title: “optical recorder and laser power control method”).

Claims 14-20 & 23-26 have similar limitations as claims 1-7, 11 & 12; thus, they are rejected on the same grounds.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 8 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Udagawa in view of Okuda (US 5,319,625).

For a description of Udagawa, see the rejection above. However, Udagawa does not disclose: in regard to claim 8, low pass filtering the sampled signals.

Okuda discloses: in regard to claim 8, low pass filtering sampled signals (see Figure 3, elements 51, 52 & 6).

It would have been obvious to one of ordinary skill in the art at the time of invention to have applied this teaching of Okuda to the method of Udagawa, the motivation being to remove fluctuation components of the sampled signals (column 3, lines 28-30), thereby minimizing noise.

Claim 21 has similar limitations as claim 8; thus, it is rejected on the same grounds.

Allowable Subject Matter

11. Claims 9 & 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The examiner suggests incorporating the teachings in page 6, second to the last paragraph of the applicant's specification, i.e., the relationship of the feedback signal to the calculated slope signal and offset signal.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fuji et al. (US 5,365,501) disclose a judgment means for generating a binary timing judgment signal of a first level when a falling edge of the sector mark detecting signal is detected during a negative-pulse period of an output of a window generation means and for generating a binary timing judgment signal of a second level when a falling edge of the sector mark detecting signal is not detected during a negative-pulse period of an output of the window generation means.

Endoh (US 5,101,394) discloses a data reproducing apparatus including a window generator that forecasts the timing of the next synchronous word with an address data from a counter and generates a window signal.

Swanson et al. (US 5,742,244) disclose a nonlinear run-length coding wherein an input string of binary data bits are recursively encoded according to a run-length selection means having a rate p/q where p is the number of input data bits that are encoded into q -channel bits.

Adams et al. (US 6,141,671) disclose a feed-forward cancellation scheme involving taking the loop error output of a subtractor filtering it using a low-pass filter, and subtracting this filtered loop error from the output with a subtractor.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Agustin whose telephone number is (571)272-7567. The examiner can normally be reached on Monday-Thursday 8:30 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter Vincent Agustin/
Patent Examiner
Art Unit 2627